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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/562,790

12/29/2005

Liam Murphy

27151U

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THE NATH LAW GROUP
112 South West Street
Alexandria, VA 22314

EXAMINER

LIU, BEN H

ART UNIT

PAPER NUMBER

2416

MAIL DATE

DELIVERY MODE

10/28/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/562,790	Applicant(s) MURPHY ET AL.	
	Examiner BEN H. LIU	Art Unit 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This is in response to an amendment/response filed on July 8th, 2008.
2. Claims 1-2 and 12-13 have been amended.
3. No claims have been cancelled.
4. No claims have been added.
5. Claims 1-13 are currently pending.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claim 13 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. While the specification does recite an application 14 that sends and receives packets of multi-media information (*see page 1 lines 22-28 and page 8 lines 15-17 in the specification of the instant application*), it fails to specifically recite implementing the claimed invention as a computer program code stored on a storage medium as recited in the currently amended claim.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Falco et al. (U.S. Patent 6,687,752).

For claim 1, Falco et al. discloses a method operable in a local device for determining clock skew in a packet-based session between the local device and a remote device with a non-deterministic packet delay, the method comprising the steps of:

receiving a sequence of control packets from the remote device transmitting media packets in a session (*see column 3 lines 17-18 and lines 40-43, which recite a receiving node that observes a progression of received RTCP control packets*); each control packet including a remote real time-stamp (*see column 3 lines 17-18, which recite RTCP packets containing a NTP timestamp of a remote sender*); and a remote media card clock time-stamp corresponding to the remote real time-stamp (*see column 3 lines 17-18, which recite RTCP packets containing a RTP timestamp of a remote sender*); and comparing a first real-time stamp and a first remote media card clock time-stamp from a first received control packet with second real-time stamp and a second remote media card clock time-stamp from a second received control packet (*see column 3 lines 18-21, which recite comparing the NTP and RTP timestamps of a first RTCP control packet with the NTP and RTP timestamps of a second RTCP control packet*) to determine from the two received control packets a first relative rate of a remote media card clock to the remote real time

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rate (*see column 3 lines 18-21, which recite comparing the NTP and RTP timestamps to determine the relative rate which the NTP timestamp advances compared to the relative rate which the RTP timestamp advances*).

For claim 2, Falco et al. discloses a method operable in a local device for determining clock skew in a packet-based session comprising the steps of:

transmitting a sequence of control packets from the local device transmitting media packets in the session; each control packet including a local real time-stamp; and a local media card clock time-stamp corresponding to the local real time-stamp (*see column 4 lines 19-21, which recite transmitting the media and control packets to endpoint 18*); and

comparing a third real-time stamp and a first local media card clock time-stamp from a first transmitted control packet with fourth real-time stamp and a second local media card clock time-stamp from a second transmitted control packet to determine from the two transmitted control packets, a second relative rate of a local media card clock to the local real-time rate (*see column 4 lines 50-63, which recite comparing the relationship between the system wall clock time and outgoing timestamps*).

For claim 3, Falco et al. discloses a method operable in a local device for determining clock skew in a packet-based session comprising the step of: synchronizing the local real time rate with the remote real time-rate (*see column 4 lines 36-67, which recite adding an offset to the local timestamp in order to synchronize the clocks*).

For claim 4, Falco et al. discloses a method operable in a local device for determining clock skew in a packet-based session wherein the devices communicate across an Internet Protocol (IP) network (*see column 1 lines 39-42, which recite transmission using IP packets*).

For claim 5, Falco et al. discloses a method operable in a local device for determining clock skew in a packet-based session wherein the network is one of a LAN (Local Area Network) a WAN (Wide Area Network) or the Internet (*see column 1 lines 39-42, which recite transmission using IP packets*).

For claim 6, Falco et al. discloses a method operable in a local device for determining clock skew in a packet-based session wherein the synchronization employs the Network Time Protocol (*see column 3 lines 16-18, which recite using NTP timestamps*).

For claim 7, Falco et al. discloses a method operable in a local device for determining clock skew in a packet-based session wherein the media packets are Realtime Transport Protocol (RTP) packets (*see column 3 lines 30-34, which recite using RTP packets*) and wherein the control packets are RTP Control Protocol (RTCP) Sender Report (SR) packets (*see figure 3, which recite using RTCP sender report packets*).

For claim 8, Falco et al. discloses a method operable in a local device for determining clock skew in a packet-based session further comprising the step of: adjusting the contents of a buffer storing the media packets received from a transmitting device according to the first and second relative rates (*see column 5 lines 37-42, which recite adjusting the times which packets are transmitted by the re-transmitting node such as the multipoint control unit 12 that receives and stores packets for retransmission*).

For claim 9, Falco et al. discloses a method operable in a local device for determining clock skew in a packet-based session further comprising the step of: determining from a difference in time between local real time when a control packet is received and the remote real time-stamp of the control packet, a first approximation of one-way media packet delay; and

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determining from the first relative rate and the first approximation a skew-corrected one-way media packet delay between devices in the session (*see column 4 lines 42-49, which recite the relationship between the incoming timestamp value and local time when the packet was received*).

For claim 10, Falco et al. discloses a method operable in a local device for determining clock skew in a packet-based session further comprising the step of: adjusting a playout strategy of the session according to the skew-corrected one-way media packet delay (*see column 5 lines 37-42, which recite adjusting the times which packets are transmitted for playout by the re-transmitting node such as the multipoint control unit 12 that receives and stores packets for retransmission*).

For claim 11, Falco et al. discloses a method operable in a local device for determining clock skew in a packet-based session wherein the real time-stamp is a system clock time (*see column 2 lines 21-29, which recite using the NTP timestamp that represents the system wall-clock time*).

For claim 12, Falco et al. discloses a device arranged to determine clock skew in a packet-based session with a non-deterministic packet delay between the device and a remote device, the device being arranged to:

receive a sequence of control packets from the remote device transmitting media packets in a session (*see column 3 lines 17-18 and lines 40-43, which recite a receiving node that observes a progression of received RTCP control packets*); each control packet including a remote real time-stamp (*see column 3 lines 17-18, which recite RTCP packets containing a NTP timestamp of a remote sender*); and a remote media card clock time-stamp corresponding to the

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remote real time-stamp (*see column 3 lines 17-18, which recite RTCP packets containing a RTP timestamp of a remote sender*); and

compare a first real-time stamp and a first remote media card clock time-stamp from a first received control packet with second real-time stamp and a second remote media card clock time-stamp from a second received control packet (*see column 3 lines 18-21, which recite comparing the NTP and RTP timestamps of a first RTCP control packet with the NTP and RTP timestamps of a second RTCP control packet*) to determine from the two received control packets, a first relative rate of a remote media card clock to the remote real time rate (*see column 3 lines 18-21, which recite comparing the NTP and RTP timestamps to determine the relative rate which the NTP timestamp advances compared to the relative rate which the RTP timestamp advances*).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Falco et al. (U.S. Patent 6,687,752) in view of Lockridge et al. (U.S. Patent Application Publication 2004/0090994).

For claim 13, Falco et al. discloses a method to determine clock skew in a packet-based session with a non-deterministic packet delay between the local device and a remote device, the method comprising the steps of:

receiving a sequence of control packets from the remote device transmitting media packets in a session (*see column 3 lines 17-18 and lines 40-43, which recite a receiving node that observes a progression of received RTCP control packets*); each control packet including a remote real time-stamp (*see column 3 lines 17-18, which recite RTCP packets containing a NTP timestamp of a remote sender*); and a remote media card clock time-stamp corresponding to the remote real time-stamp (*see column 3 lines 17-18, which recite RTCP packets containing a RTP timestamp of a remote sender*); and

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comparing a first real-time stamp and a first remote media card clock time-stamp from a first received control packet with second real-time stamp and a second remote media card clock time-stamp from a second received control packet (*see column 3 lines 18-21, which recite comparing the NTP and RTP timestamps of a first RTCP control packet with the NTP and RTP timestamps of a second RTCP control packet*) to determine from the two received control packets, a first relative rate of a remote media card clock to the remote real time rate (*see column 3 lines 18-21, which recite comparing the NTP and RTP timestamps to determine the relative rate which the NTP timestamp advances compared to the relative rate which the RTP timestamp advances*).

Falco et al. discloses all the subject matter of the claimed invention with the exception wherein the process to determine clock skew in a packet-based session with a non-deterministic packet delay between the local device and a remote device is implemented as a computer program product comprising computer program code stored on a storage medium which when executed in a local device is arranged to determine clock skew in a packet-based session. However, Lockridge et al. from the same or similar fields of endeavor disclose a jitter removal method between network nodes by using various timestamps included in transmitted packets (*see abstract*). The method can be implemented by loading a program onto configuration device 918 to operate Time stamp controller 916 (*see paragraph 61*). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to implement the process to determine clock skew in a packet-based session using timestamps as taught by Falco et al. as a computer program as taught by Lockridge et al. The process to determine clock skew in a packet-based session with a non-deterministic packet delay can be implemented as a computer

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program by using a configuration device 918 as taught by Lockridge et al. to load a program that determines clock skew as taught by Falco et al. The motivation for to implementing the process to determine clock skew in a packet-based session using timestamps as a computer is to improve the usability of the system by allowing the process to be easily configurable without modifying hardware components.

Response to Arguments

14. Claim 13 was previously rejected under 35 U.S.C. 101 because the claimed invention was directed to non-statutory subject matter. It is noted that the applicant has amended the claim in response to the rejection. However, the claim as amended is currently rejected under 35 U.S.C. 112, first paragraph.

15. Applicant's arguments with respect to the prior art rejection of claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. (*see form PTO-892*).

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BEN H. LIU whose telephone number is (571)270-3118. The examiner can normally be reached on 9:00AM to 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571)272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ricky Ngo/
Supervisory Patent Examiner, Art Unit
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